

**IN THE SPECIFICATION:**

Please amend the Specification as follows:

**[0014]** According to still another preferred embodiment of the present invention, ~~he~~ the buckling form is assumed to be buckling due to a primary deformation mode and buckling due to a secondary deformation mode, and ratio of the length L of said member to the thickness t of said member "L/T" is set so that the difference between the buckling load at the primary deformation mode and that at the secondary deformation mode is equal to or near the maximum value.

**[0016]** FIG. 1 is a ~~plane plan~~ view ~~totally showing~~ illustrating an apparatus for controlling the rigidity of vehicle body according to an embodiment of the present invention;

**[0039]** As shown in FIG. 1, apparatus M for controlling the rigidity of vehicle body according to the first embodiment of the present invention (hereinafter simply referred to as "apparatus") mainly comprises lateral force generators 3, 3, provided on right and left side frames 2, 2 extending toward the longitudinal direction of vehicle 1, and a control device ~~[[4]]~~ 5 provided on center frame 4 placed near the center of vehicle 1. Further, apparatus M possesses distance sensors 61-66 (each serving as detection of collision) placed within front bumper 6.

**[0040]** As shown in FIG. 2, lateral force generators 3 are placed in between a pair of plates 21, 21 (hollow members) which bind side frames having being divided into two ~~peaces~~ pieces in the longitudinal direction to each other. Each of lateral force generators 3 mainly comprises supporting rods 31, 31 (frame restrictions), permanent magnet ~~[[3]]~~ 32 provided on the tip of one of supporting rods 31, 31, and electromagnet

33 (restriction controller) provided on the tip of another end of one of supporting rods 31, 31. By controlling power supplied to electromagnet through controller 5, a lateral force (absorbing force) substantially perpendicular to side frame 2 and plate 21 is controlled.

**[0044]** It should be noted that the use of plate 21 having an  $L/t$  ratio with the maximum difference in buckling load is not essential in the present invention, and the  $L/t$  ratio may be freely selected. For example, plate 21 used may have an  $[[L/C]] \underline{L/t}$  ratio slightly smaller than that shown as shaded portion in FIG. 5. In this case, although the difference in the buckling load between the secondary deformation mode and the primary deformation mode is slightly smaller than plate 21 having the  $L/t$  ratio within the shaded portion, the buckling loads themselves may be advantageously increased.

**[0045]** As shown in FIG. 1, controller 5 detects the collision form on the basis of the outputs from distance sensors 61-66, and controls the current supplied to electromagnet 33 of lateral force generator 3 depending upon the detected collision form. Distance sensors 61-66 detect the collision form. Specifically, they detect the distance to the collided subject using laser or ultrasonic wave. If the outputted values from all of distance sensors 61-66 are judged to be lower than a given value by controller 5, the controller 5 judges that the collision form is fully lapped collision. If the outputted value from at least one distance sensor 61-63 at the right side of the vehicle or at least least one distance sensor 64-66 is judged to be lower than a given value by controller 5, the controller 5 judges that the collision form is offset collision. As shown in FIG. 6, when judged to be the fully lapped collision, controller 5 gives current lower than that running through electromagnet 33 at a usual state to electromagnet 33. When

judged to be the offset collision, controller 5 gives electromagnet a current required for switching the mode into the secondary deformation mode. By controlling the current as described above, the pair of plates 21, 21 are fixed through the lateral force acted towards the direction that they are attracted. At the time of fully lapped collision, the lateral force becomes lower than a given value, whereby each plate 21 becomes easily buckled in the primary deformation mode. At the time of offset collision, the lateral force becomes higher than the given value, whereby each plate 21 is buckled in the secondary deformation mode.

**[0046]** The control of the current given to electromagnet ~~[[31]]~~ 33 should not be restricted to the control as described, and any control may be performed. For example, when controller 5 judged to be the fully lapped collision, controller may give electromagnet 33 current in the reverse direction to that at the usual time and at the time of the offset collision. In this case, since a lateral force acted on the pair of plates 21, 21 in the direction that they are repelled at the time of the fully lapped collision, this lateral force motivates the opportunity that these plates 21, 21 are positively deformed in a prescribed direction. Also, it is possible that the controller 5 gives current to electromagnet 33 only when it judges to be the offset collision. Specifically, the controller 5 may control ON/OFF of electromagnet to switch the mode, i.e., from the primary deformation mode to the secondary deformation mode or vice versa.

**[0055]** The pair of plates 21, 21 and lateral force generat~~3~~~~or~~ generators 3 may be disposed ~~[[on]]~~ anywhere. For example, they can be placed on side frame 2 at the vertically bent portion as shown in FIG. 8A (the position according to the first

embodiment), or on a portion behind crush box 8 for absorbing the collision load as shown in FIG. 8B.